

CHAPTER CONTENTS

Refer to this chapter for the following:

- An introduction to GPS and the Oncore receiver.
- A limited warranty for the Oncore receiver.

About your Oncore Receiver

OVERVIEW

Nearly a decade of Global Positioning System (GPS) experience, combined with world-class expertise in semiconductor products and communications development, has led Motorola to the production of a new generation of GPS receiver modules, more compact and lightweight than ever before. Each channel of the versatile, 8-channel Oncore receiver independently tracks both code and carrier for the superior performance required in today's GPS user environment. Specifically designed for embedded applications, the GT Oncore product, when combined with its new, low-profile, active microstrip patch antenna, affords the engineer new freedom in bringing GPS technology to the most demanding Original Equipment Manufacturer (OEM) applications.

The Motorola GPS Receiver transmits autonomous position, velocity, heading, satellite tracking status, and time information in Motorola's binary I/O protocol. The UT Oncore GPS Receiver also includes the precise one pulse per second (1PPS) timing output with TRAIM.

PRODUCT HIGHLIGHTS

Features

Features that characterize the Motorola Oncore include the following:

- 8-channel parallel receiver
- Code plus carrier tracking (carrier-aided tracking)
- Position filtering
- Optional on-board Lithium battery
- Antenna current sense circuit
- Operates from +5 Vdc regulated power
- TTL interface to host equipment
- 3-dimensional positioning within 25 meters, SEP (without Selective Availability [SA])
- Latitude, longitude, height, velocity, heading, time, and satellite status information output either continuously (once per second) or polled
- Differential GPS with Motorola binary corrections
- RTCM SC-104 differential GPS correction input on second comm port
- NMEA 0183 output
- Velocity filtering
- 1PPS output (+/- 500 ns accuracy)
- Optional on-board LNA for use with a passive antenna
- Precise 1PPS output (+/- 50 ns accuracy)
- Selectable 100PPS output
- Time RAIM (Receiver Autonomous Integrity Monitoring) algorithm for checking timing solution integrity.
- Automatic Site Survey
- Jamming protection

Automotive Version GT Oncore

Timing Version UT Oncore

Applications

PRODUCT HIGHLIGHTS (CONTINUED)

Considering that 24-hour, all weather, worldwide coverage is fundamental to GPS positioning and navigation, it is easy to envision a broad range of applications and a large community of GPS users. Applications include the following:

- Automobile Navigation
- Aircraft Navigation
- Land Navigation
- Marine Navigation
- Emergency calling
- Theft recovery
- Telematics
- Fleet Tracking
- Routing Systems
- Rail Management
- Asset Management
- Emergency Search and Rescue
- Utility Services
- Precise Time Measurement
- Frequency Stabilization
- Network Synchronization
- Surveying and Mapping
- Exploration

LIMITED WARRANTY MOTOROLA GPS PRODUCTS

What This Warranty Covers and for How Long

MOTOROLA, INC. ("MOTOROLA") warrants its Global Positioning System (GPS) Products ("Product") against defects on material and workmanship under normal use and service for a period of twelve (12) months from Product's in-service date, but in no event longer than eighteen (18) months from initial shipment of the Product.

MOTOROLA, at its option, will at no charge either repair, exchange, or replace this Product during the warranty period provided it is returned in accordance with the terms of this warranty. Replaced parts or boards are warranted for the balance of the original applicable warranty period. All replaced parts or Product shall become the property of MOTOROLA. Any repairs not covered by this warranty will be charged at the cost of replaced parts plus the MOTOROLA hourly labor rate current at that time.

This express limited warranty is extended by MOTOROLA to the original end user purchaser only and is not assignable or transferable to any other party. This is the complete warranty for Products manufactured by MOTOROLA. MOTOROLA does not warrant the installation, maintenance or service of the Product.

MOTOROLA cannot be responsible in any way for any ancillary equipment not furnished by MOTOROLA which is attached to or used in connection with MOTOROLA's GPS Products, or for operation of the Product with any ancillary equipment and all such equipment is expressly excluded from this warranty. The Global Positioning System is operated and supported by the U.S. Department of Defense and is made available for civilian use solely at its discretion. The Global Positioning System is subject to degradation of position, velocity, and time accuracies by the Department of Defense. MOTOROLA does not warrant or control Global Positioning System availability or performance.

This warranty applies within the fifty (50) United States and the District of Columbia.

What This Warranty Does Not Cover

(a) Defects or damage resulting from use of the Product in other than its normal and customary manner. (b) Defects or damage from misuse, accident or neglect. (c) Defects or damage from improper testing, operation, maintenance, installation, alteration, modification or adjustment. (d) Defects or damage due to lightning or other electrical discharge. (e) Product disassembled or repaired in such a manner as to adversely affect performance or prevent adequate inspection and testing to verify any warranty claim. (f) Product which has had the serial number removed or made illegible. (g) Freight costs to the repair depot.

Limited Warranty (Continued)

How to Get Warranty Service

To receive warranty service, contact your Oncore reseller.

General Provisions

This warranty sets forth the full extent of MOTOROLA's responsibility regarding the Product. Repair, replacement, or refund of the purchase price, at MOTOROLA's option, is the exclusive remedy. THIS WARRANTY IS GIVEN IN LIEU OF ALL OTHER EXPRESS WARRANTIES. IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO THE DURATION OF THIS LIMITED WARRANTY. IN NO EVENT SHALL MOTOROLA BE LIABLE FOR DAMAGES IN EXCESS OF THE PURCHASE PRICE OF THE PRODUCT, FOR ANY LOSS OF USE, LOSS OF TIME, INCONVENIENCE, COMMERCIAL LOSS, LOST PROFITS OR SAVINGS OR OTHER INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE INSTALLATION, USE, OR INABILITY TO USE SUCH PRODUCT, TO THE FULL EXTENT SUCH MAY BE DISCLAIMED BY LAW.